



# Science for the Planet:

## A Project-Based Learning Model

The Pacific Education Institute's Project-Based Learning Model engages students in relevant learning that positively impacts their local communities and ecosystems. This model is a framework that can be used for Washington State's OSPI Environment and Sustainability's sustainable design projects and to facilitate curriculum integration, action projects, and opportunities for students to showcase their achievements. PEI's Model aligns with Washington State's third Science Essential Academic Learning Requirement (Application), as well as the service-learning process from Washington State's Office of Superintendent of Public Instruction, and PEI's Civic Participation strategic goal.

**Through the Pacific Education Institute's Project-Based Learning Model, students:**

<b>Step 1: Describe the Ecosystem</b> Describe the biological, geological, and physical properties of the local ecosystem and how it interacts with and connects to the larger system.	<b>Curriculum Integration</b>
<b>Step 2: Define the Problem</b> Identify a local problem that involves the system.	
<b>Step 3: Research the Problem</b> Gain deeper insight into the problem while establishing criteria for measuring a solution's effectiveness in addressing the problem.	
<b>Step 4: Understand Stakeholders</b> Identify the perspectives, interests and positions of the major groups and individuals that may influence or be impacted by the problem and/or potential solutions.	
<b>Step 5: Determine Possible Solutions</b> Determine and compare solutions in relation to possible impacts, stakeholder perspectives, limitations and feasibility.	<b>Action Projects &amp; Stewardship</b>
<b>Step 6: Develop a Plan</b> Work collaboratively to develop a plan to solve the problem - identifying required resources and steps needed for implementation, as well as reflecting on the potential outcomes of the solution.	
<b>Step 7: Implement the Plan</b> Carry out the plan in collaboration with others, and keep records of the process and results.	
<b>Step 8: Summarize, Evaluate and Reflect</b> Evaluate, reflect upon and communicate the plan's results, including intended and unintended consequences, and its effectiveness based on the criteria for success.	<b>Showcase Project</b>